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16 January 1980

MEMORANDUM FOR THE RECORD

SUBJECT: IDHSC-II Briefing

1. General

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25X1 On 8 January 1980, [ ] briefed DASITT on IDHSC-II at the CHB. [ ] is from DIA, System Engineering Executive Directorate, Networking Division (RSE-2). Attendees were:

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2. System Definition

a. History

IDHSC-II is the Intelligence Data Handling System Communications, Version two. It is what was once called the Worldwide Intelligence Communication System (WICS). It is the logical outgrowth of IDHSC; the first version was a star network with a store and forward switch in the middle, at DIA, and a bulk data transfer facility from DIA to PACOM. [ ]

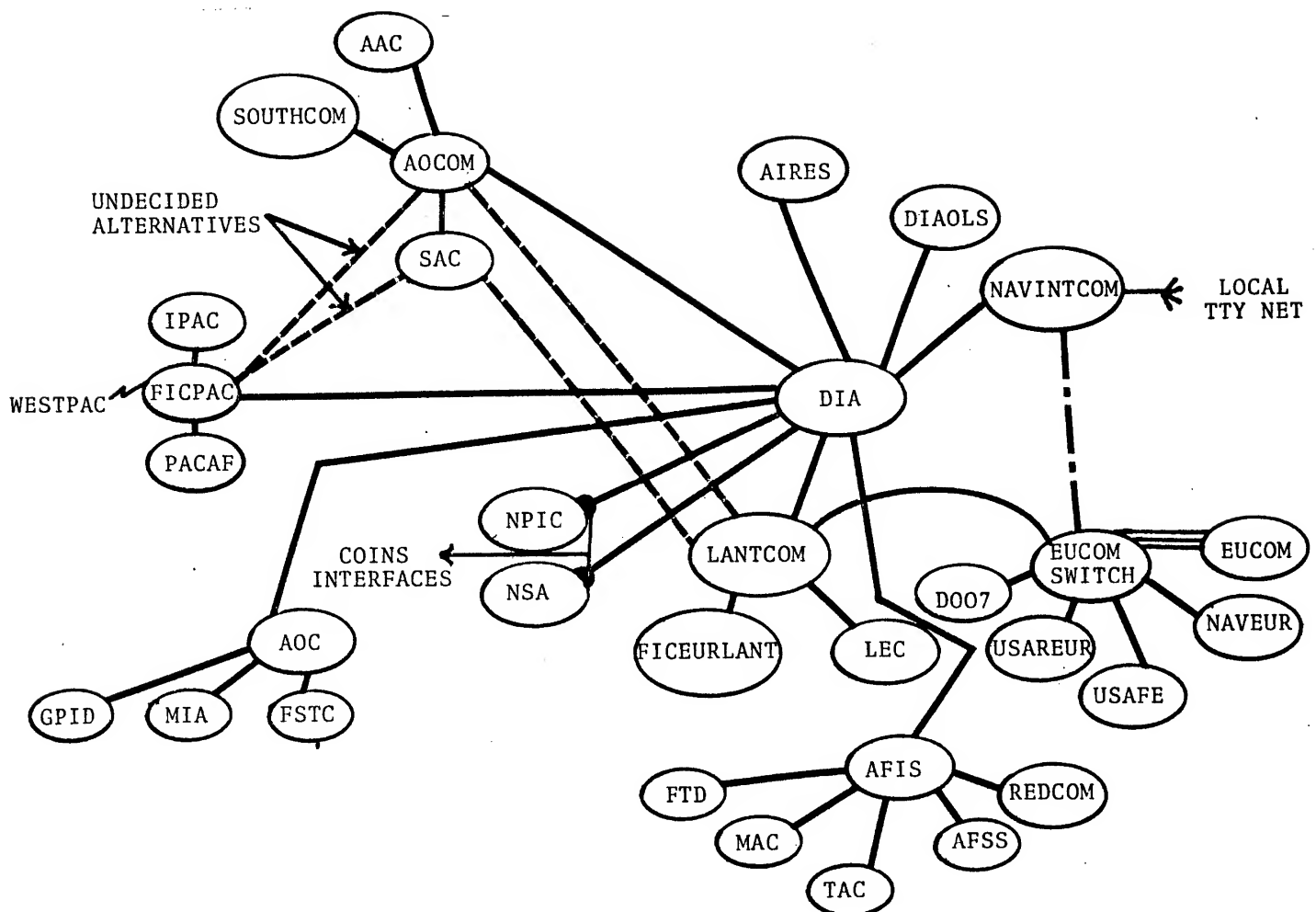
b. Current Structure

The IDHSC-II connectivity chart is shown in Figure 1. Each node has a PDP-11/70 and access to one or more communication lines (2400-9600 bps) connecting to other nodes' PDP-11/70's. (Two nodes, NMIC and HQ, EUCOM, have PDP-11/45's instead of 70's.) The computer at each node has the IDHSC-II standard software package in it, interfacing

DIA review(s) completed.

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locally created application programs to the DEC DDCMP network protocol to communicate with whatever machines are at the far end of the communication lines connected to the given machine in a packet switched sort of way. The standard software was built by DIA and [redacted] and was security accredited in October 1979 for system high operation. [redacted]

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c. Relationship With Other Systems

1) COINS

IDHSC-II supports all access to NPIC and NSA files for COINS-II. Thus, the concept of a "COINS Terminal" is going away. COINS-II remote batch will be supported at NPIC in February 1980. The interactive access is scheduled for the end of 1981. A feasibility study is underway to use a TAS for interactive access to NPIC COINS service. The interface between an IDHSC-II computer and the NPIC (or NSA) computers supporting COINS-II is Teletype Model 40 protocol. [redacted]

2) INDICOM

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The INDICOM system is completely disjoint from IDHSC-II. It is a separate set of lines connecting a separate set of PDP-11/70's. INDICOM uses, however, IDHSC-II standard software. [redacted]

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3) AUTODIN-II

IDHSC-II will be replaced, in totality, by AUTODIN-II when it becomes operational, and when an appropriate network front end is developed. It was supposed to come up 15 December 1979 but did not. Further, DCA has not rescheduled IOC yet. [redacted] estimates IOC about September 1980. The network front end software will be developed by DCA's CCTC (Command and Control Technical Center). DIA started doing one but C<sup>3</sup>I got involved causing DIA to relinquish the prerogative to DCA. DCA promised an "IFE" (maybe "interim front end") running on an 11/70 under the UNIX operating system by 1982. Once the switchover from IDHSC-II to AUTODIN-II occurs, about 30-40% of AUTODIN traffic will be due to former IDHSC-II users, according to [redacted]

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4) Tetrahedron

The two Tetrahedron 64 Kb/s lines connecting DIA to NSA and NPIC are due in February 1980. Other link speed upgrades' (e.g. 9600 to 50,000) feasibility will be judged on the Tetrahedron experience. [redacted]

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b) Applications Interfaces

In several cases, application software coresident with IDHSC-II software serves extended functions. Examples are USAREUR and FSTC using ASSIST and NAVINTCOM using a local teletype network manager (called TOM). The TOM will be offered as a standard to any other user desiring it. When AUTODIN-II replaces IDHSC-II, the coresidence will be prohibited due to multi-level security accreditation considerations.

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d. IDHSC-II Software

Figure 2 shows a stylized schematic of the internals of the IDHSC-II software. Three points should be underscored.

- 1) Main storage is managed by IDHSC-II
- 2) Packet switching is supported through disc buffering of messages.
- 3) The router supports interfaces that look like:

- IDHSC-I,
- IDHSC-II,
- COINS-I,
- COINS-II, and
- DIAOLS.

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e. Cost

[Redacted]

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3. Futures

No upgrades of IDHSC-II are planned, beyond the conversion of the software to run under the IAS operating system to replace RSX-11D. This conversion will occur as part of maintenance because DEC is withdrawing support of RSX-11D.

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IDHSC-II will be replaced by AUTODIN-II when the DCA CCTC network front end is operational, probably in 1982-1983.

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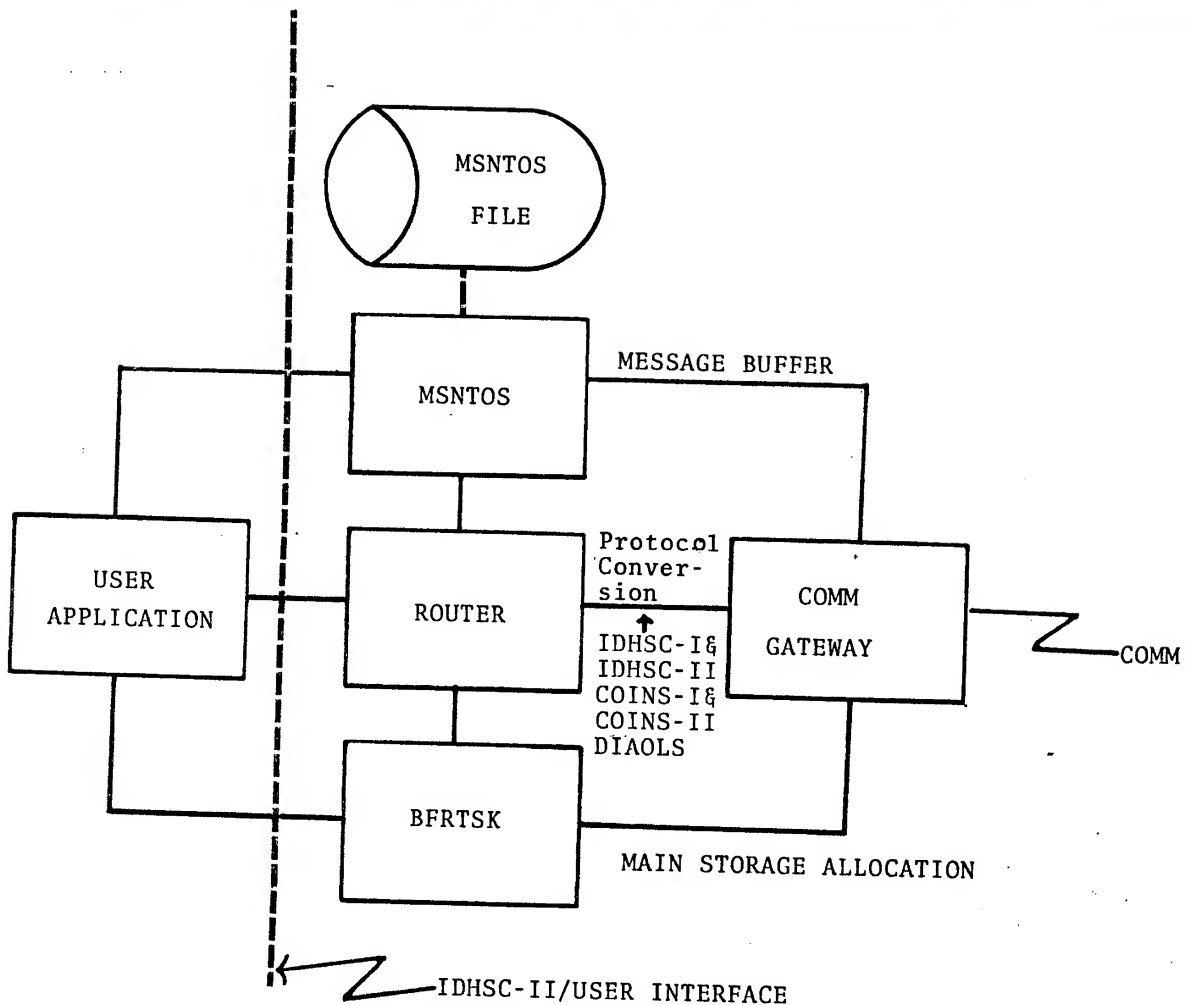


FIGURE 2: IDHSC-II SOFTWARE STRUCTURE

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